$$E = R^{-6}/(R^{-6} + R_o^{-6})$$

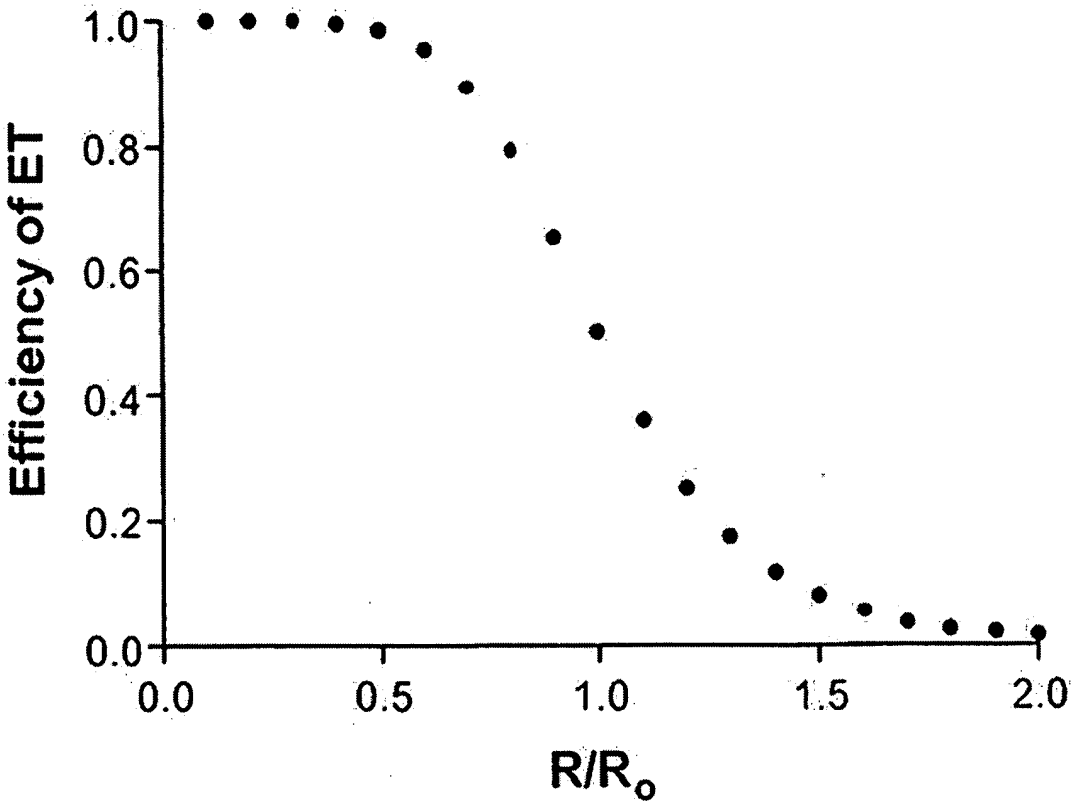


FIG. 1

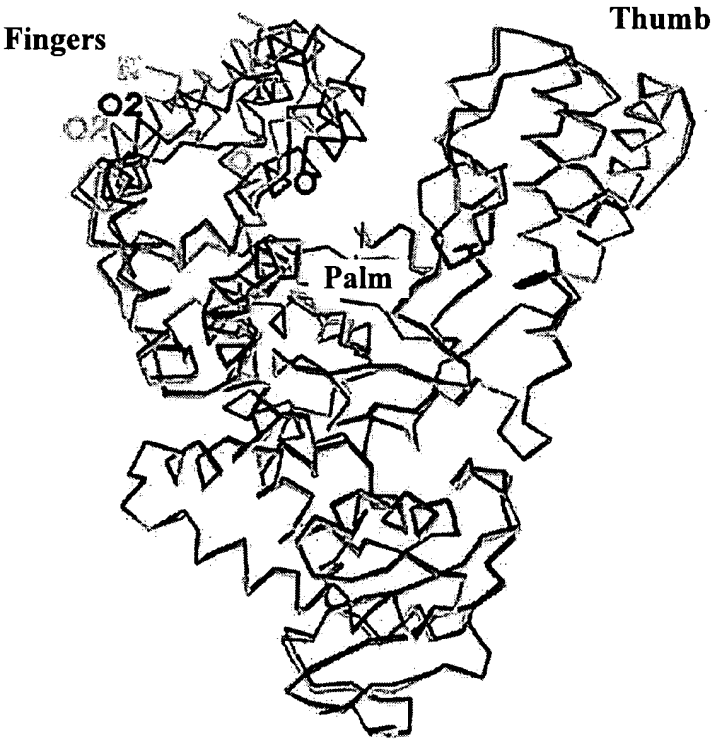


FIG. 2

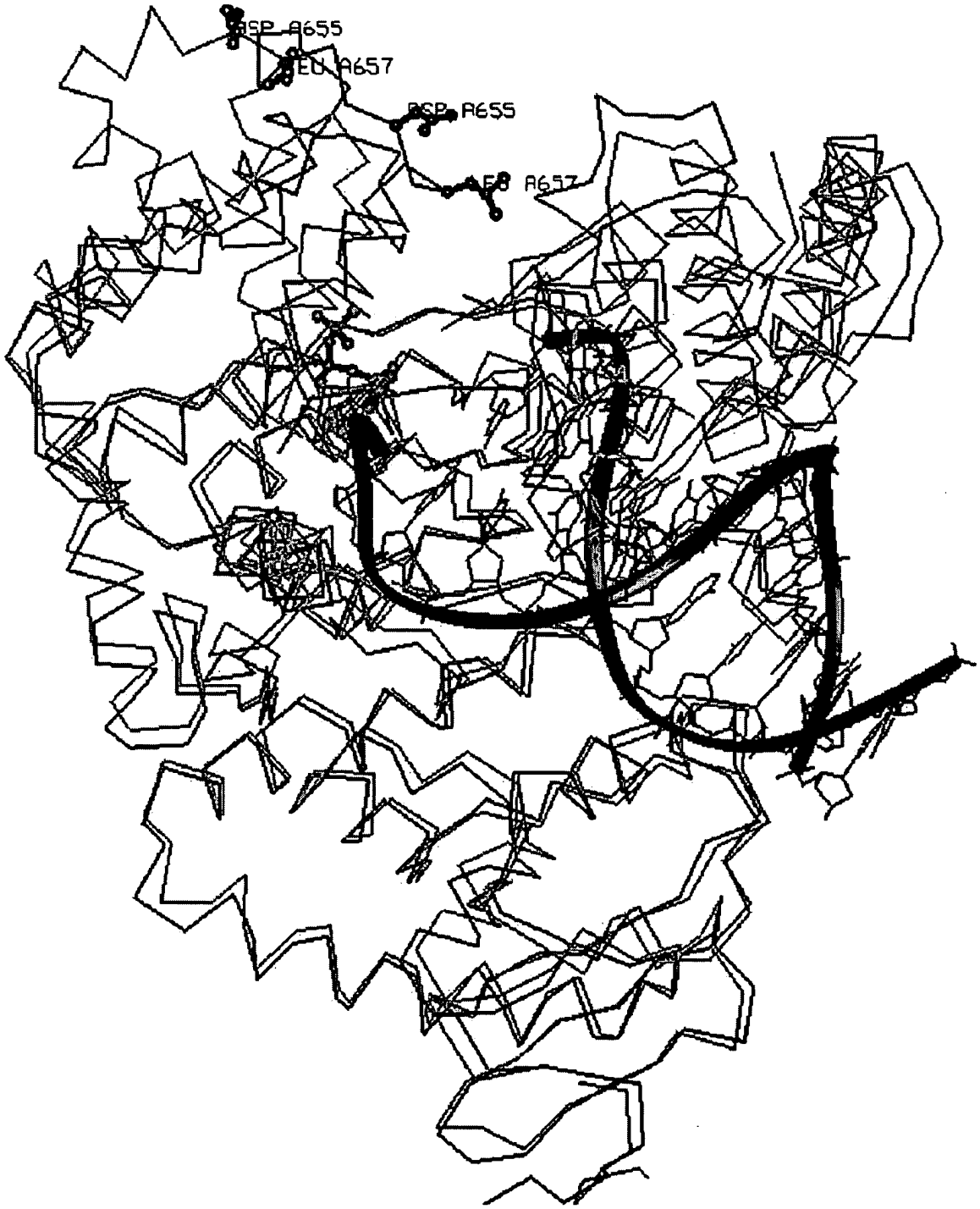


FIG. 3A

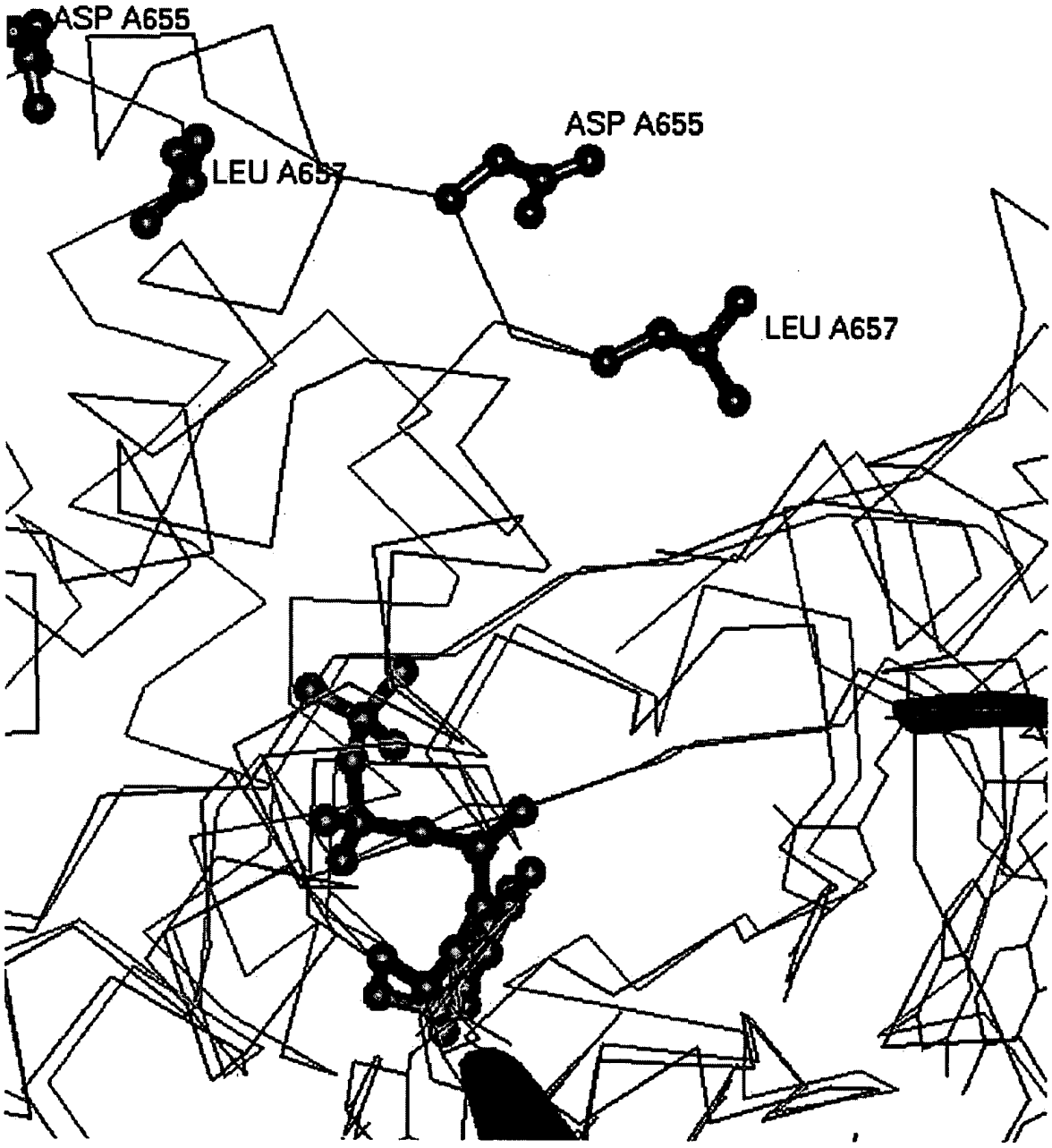


FIG. 3B

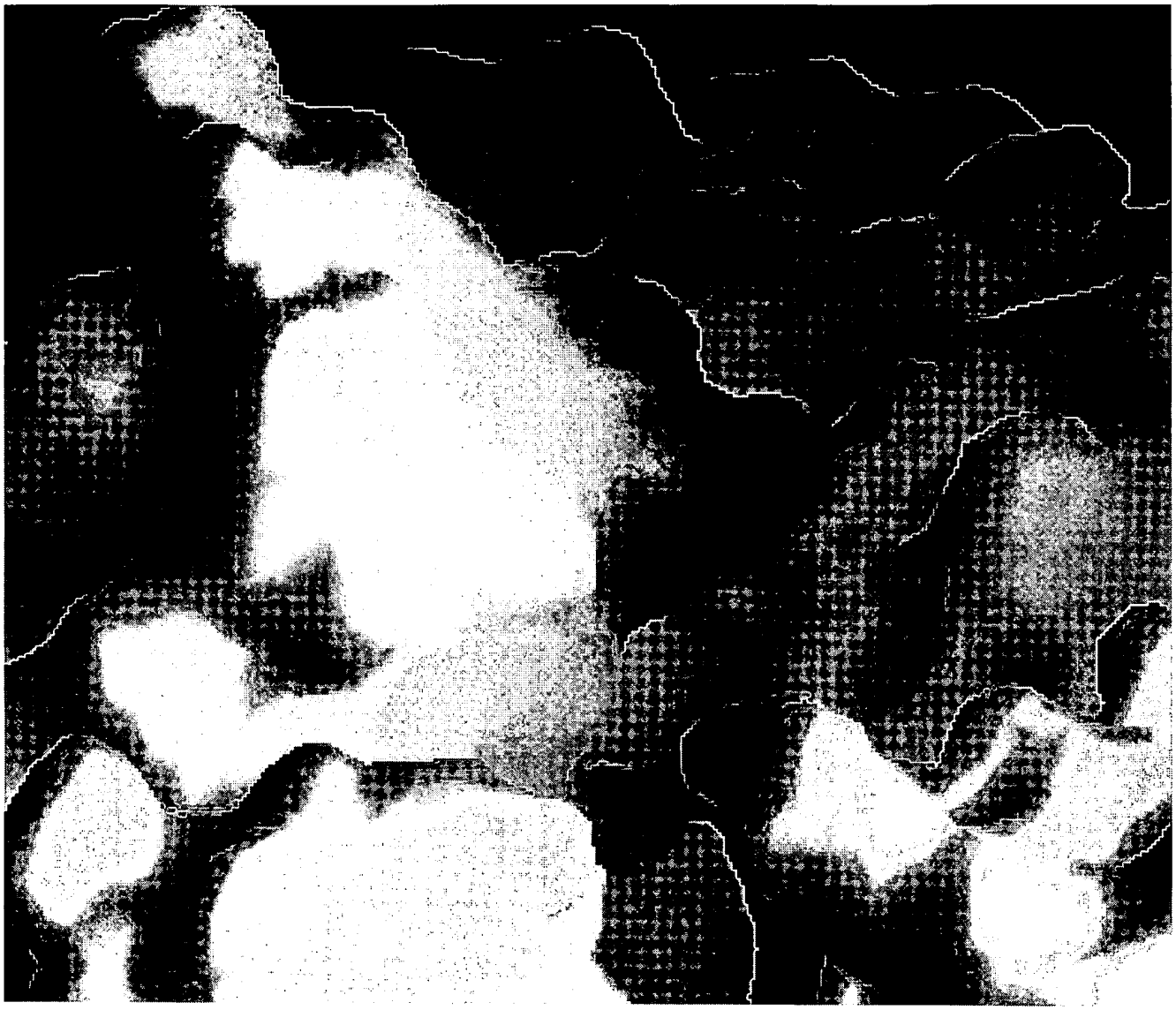
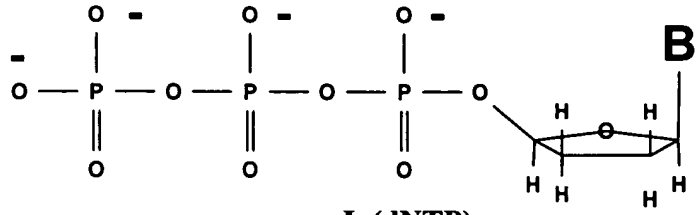
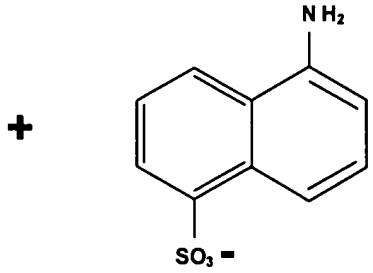


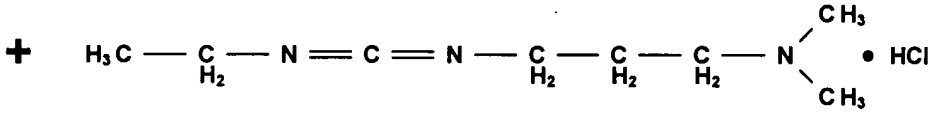
FIG. 3C



I (dNTP)



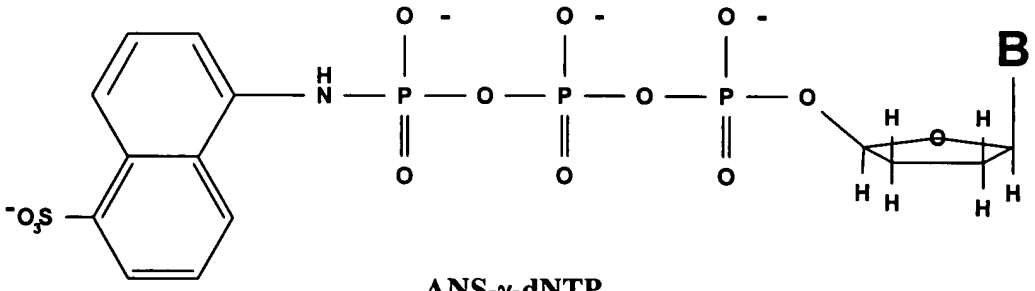
II (ANS)



III

H_2O
22°C
2.5 Hours
pH: 5.7-5.8

B = A, C, T or G



ANS-γ-dNTP

FIG. 4

Primer Strand:	
TOP 5'	GGT ACT AAG CGG CCG CAT G 3'
Template Strands:	
BOT- T 3'	CCA TGA TTC GCC GGC GTA CTC 5'
BOT- C 3'	CCA TGA TTC GCC GGC GTA CCC 5'
BOT- G 3'	CCA TGA TTC GCC GGC GTA CGC 5'
BOT- A 3'	CCA TGA TTC GCC GGC GTA CAC 5'
BOT- 3T 3'	CCA TGA TTC GCC GGC GTA CTT TC 5'
BOT- Sau 3'	CCA TGA TTC GCC GGC GTA CCT AG 5'

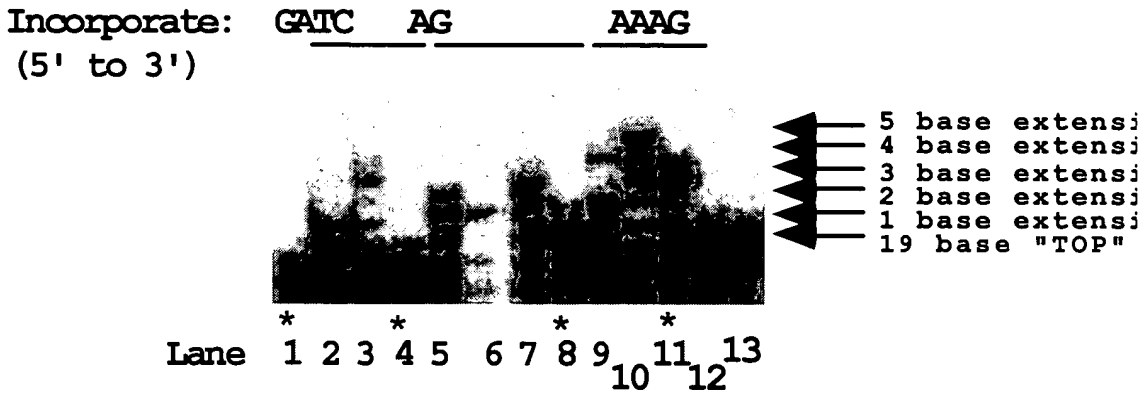


FIG. 5

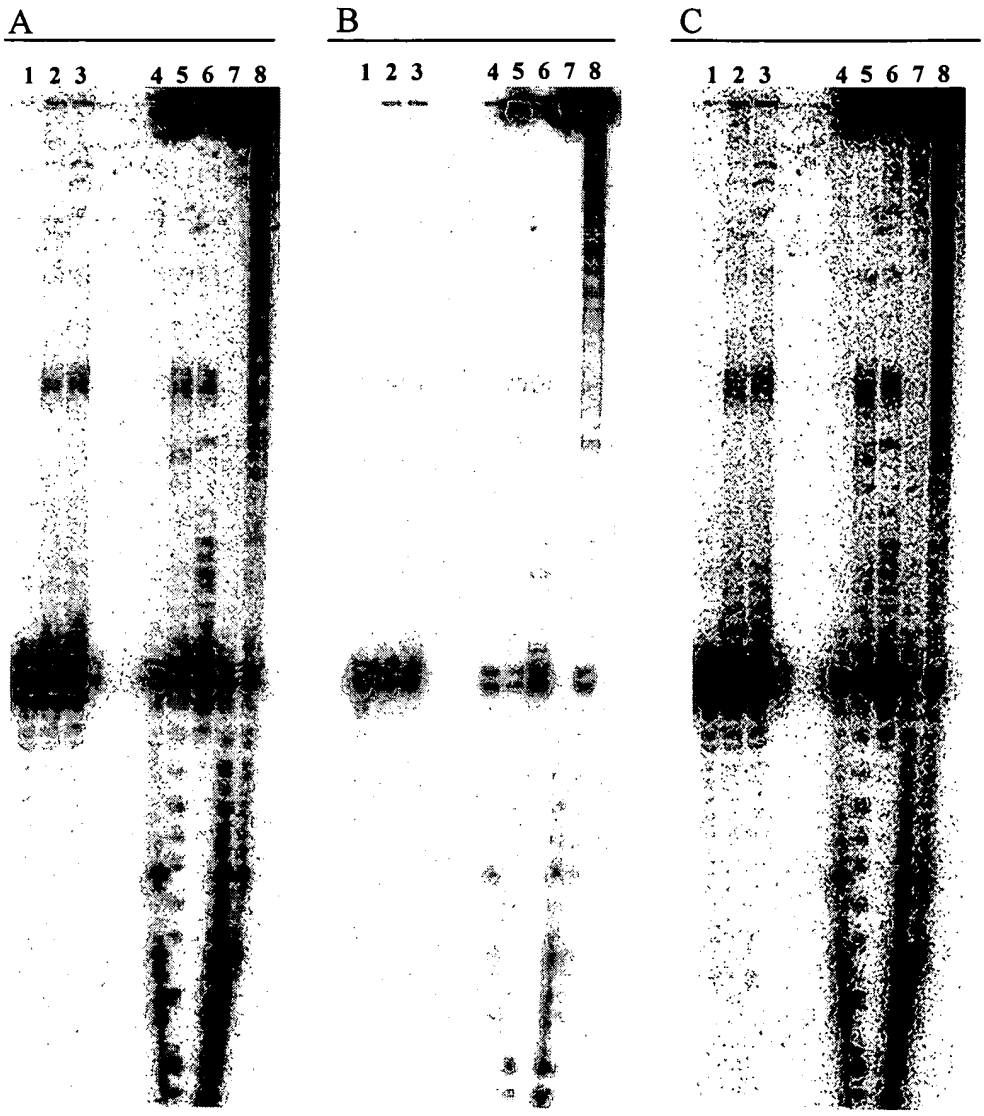


FIG. 6

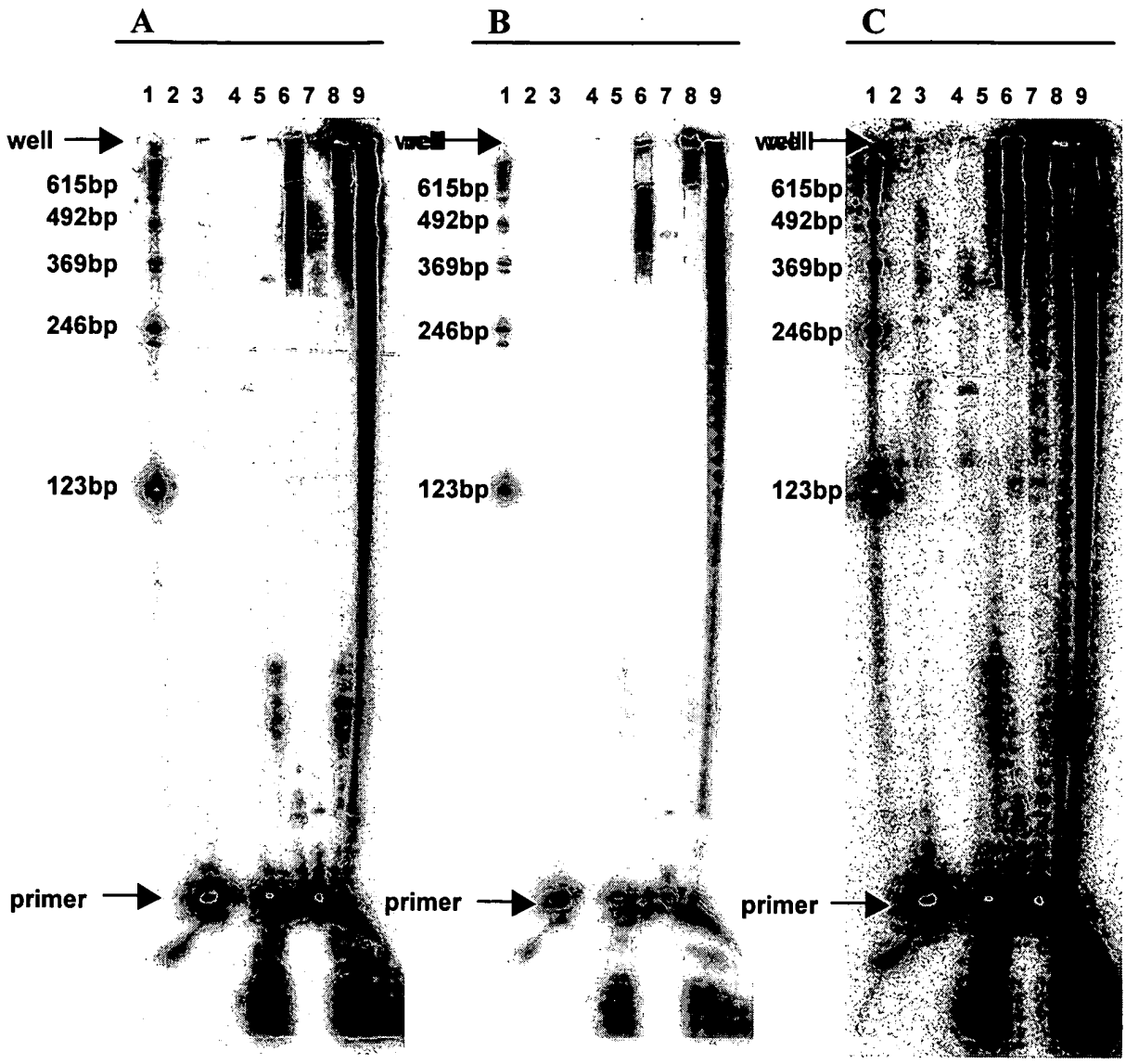


FIG. 7

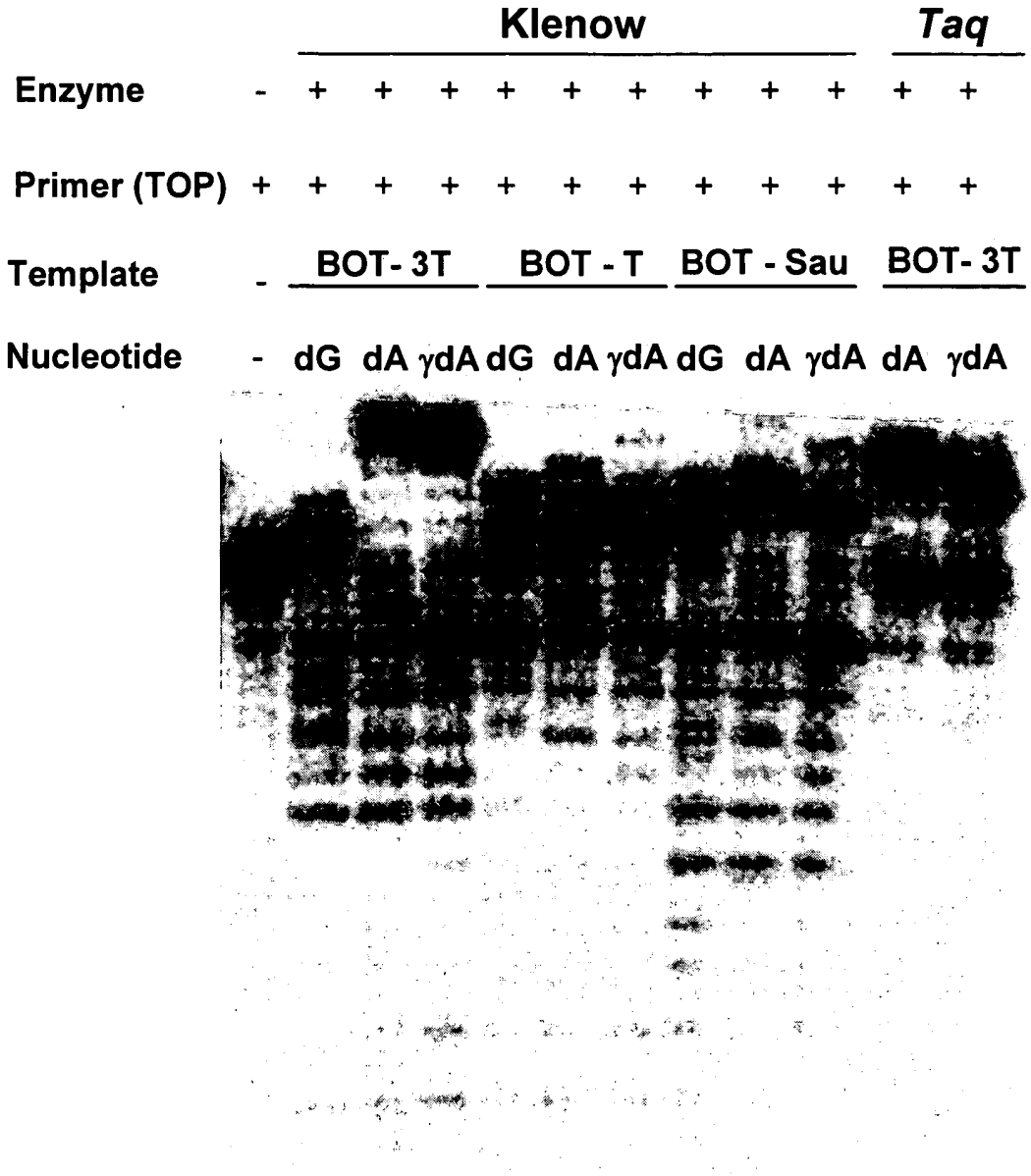

Klenow
Taq
Enzyme - + + + + + + + + + + +
Primer (TOP) + + + + + + + + + + + +
Template - BOT- 3T BOT - T BOT - Sau BOT- 3T
Nucleotide - dG dA γdA dG dA γdA dG dA γdA dA γdA

FIG. 8

Pfu Primer Extension Assays

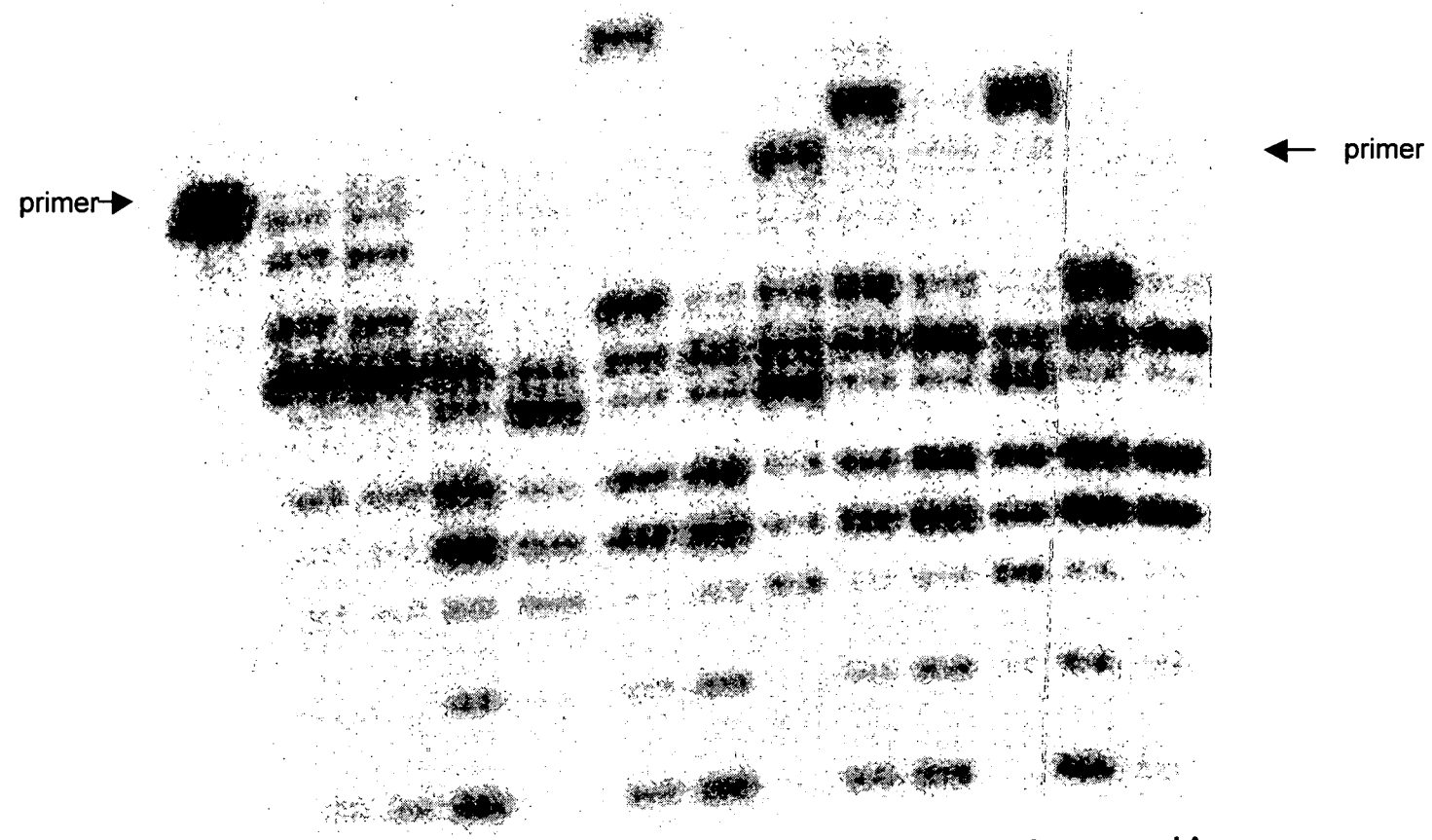


FIG. 9

- Primer Strand:

Top	5′	GGT	ACT	AAG	CGG	CCG	CAT	G	3′

- Template Strands:

3T	3′	CCA	TGA	TTC	GCC	GGC	GTA	CTT	TC 5′
Sau	3′	CCA	TGA	TTC	GCC	GGC	GTA	CCT	AG 5′

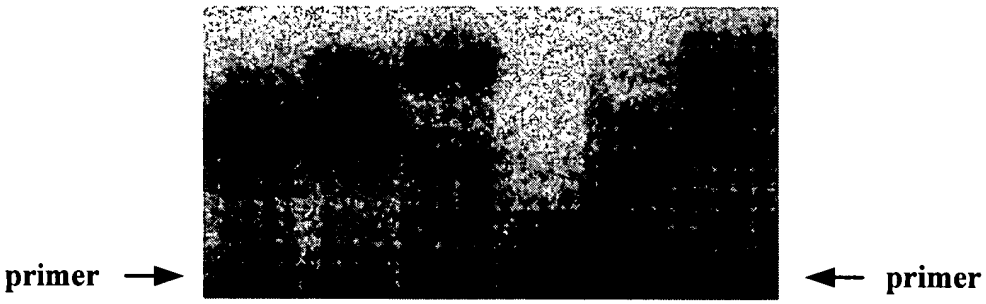


FIG. 10

- Primer Strand:

  Top 5′ GGT ACT AAG CGG CCG CAT G 3′

- Template Strands:

  BOT -3T 3′ CCA TGA TTC GCC GGC GTA CTT TC 5′

  BOT - Sau 3′ CCA TGA TTC GCC GGC GTA CCT AG 5′

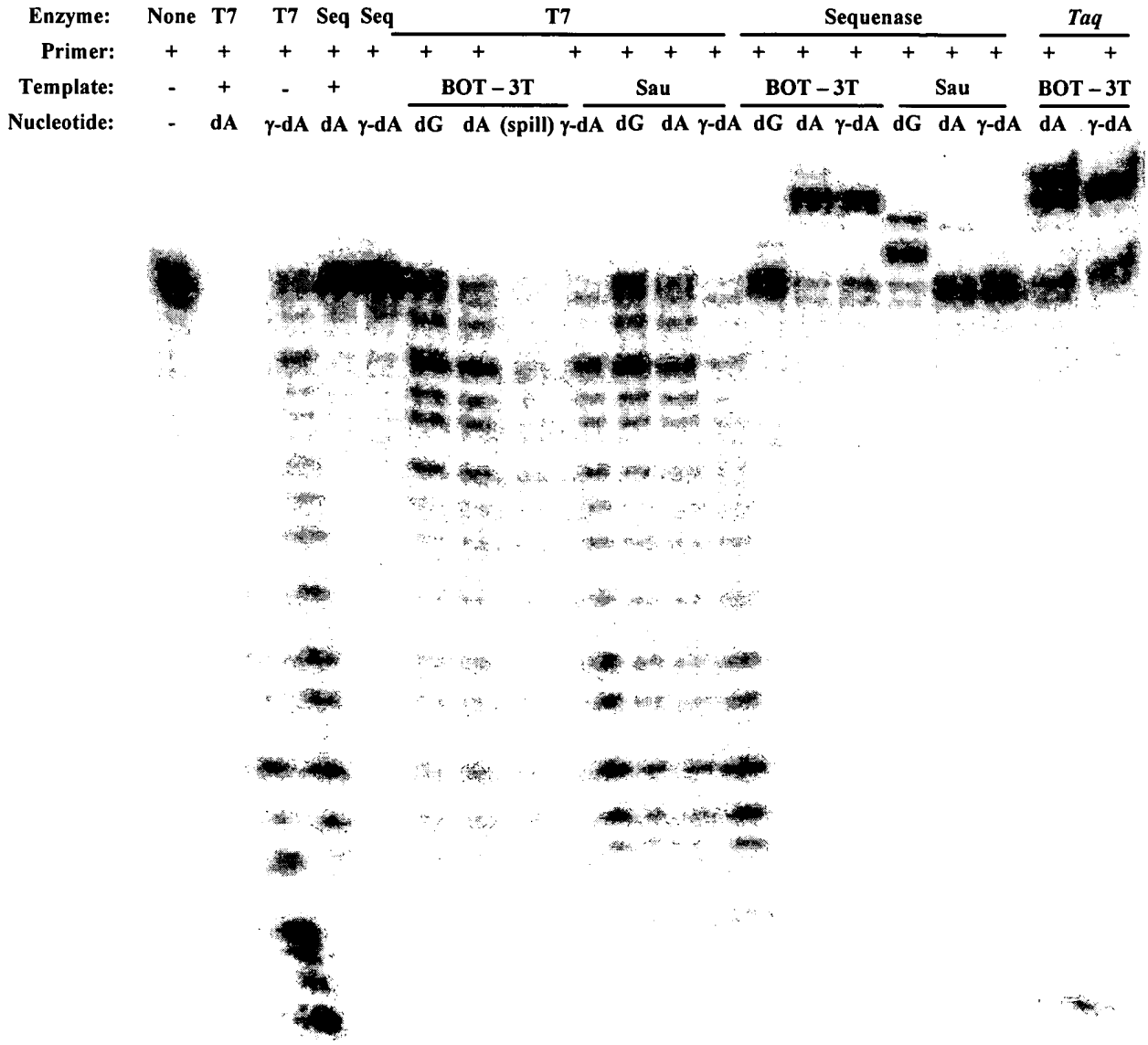


FIG. 11

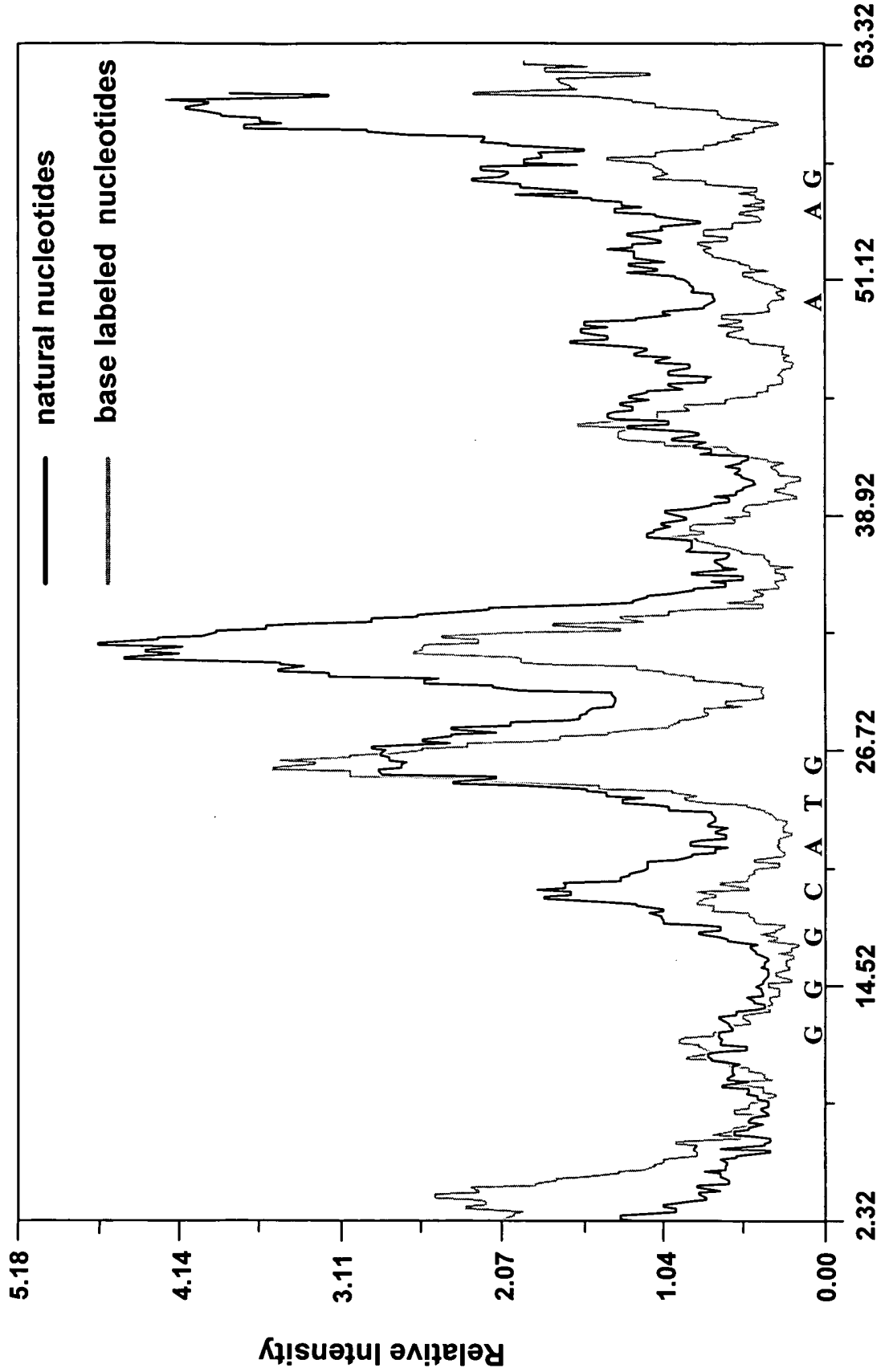

natural nucleotides
base labeled nucleotides
Relative Intensity
5.18
4.14
3.11
2.07
1.04
0.00
2.32
14.52
26.72
38.92
51.12
63.32
G G G C A T G
A A G
Relative Time

FIG. 12